

CLAIMS

We claim

1. A method for treating or preventing pain in a subject, comprising administering a lentiviral vector system comprising an entity of interest (EOI) to a dorsal root ganglion cell (DRG) in the subject.
2. The method according to claim 1, wherein the vector system is administered by injection into a DRG of the subject.
3. The method according to claim 1, wherein the vector system is administered to the subject at a site which is distant to the DRG and the vector system or a part thereof travels to the DRG by retrograde transport.
4. The method according to claim 3, wherein the vector system is or comprises at least a part of a rabies G protein or a mutant, variant, homologue or fragment thereof.
5. The method according to claim 3, wherein the site is a peripheral site.
6. The method according to claim 3, wherein the vector system is administered to the subject by injection into an area of pain.
7. The method according to claim 1, wherein the EOI modulates cellular excitability of a target cell.
8. The method according to claim 7, wherein the EOI causes hyperpolarisation of the target cell.
9. The method according to claim 1, wherein the EOI modulates expression or activity of an ion channel.
10. The method according to claim 9, wherein the EOI causes expression of an ion channel or part thereof.
11. The method according to claim 10, wherein the ion channel is constitutively active.
12. The method according to claim 1, wherein:
 - (i) the EOI is an NOI;
 - (ii) expression of the NOI is under the control of a targeted promoter; and
 - (iii) the targeted promoter restricts the expression of the NOI to C fibers and/or A* fibres.
13. The method according to claim 1, wherein:
 - (i) the EOI is an NOI; and
 - (ii) expression of the NOI is inducible.

14. The method according to claim 1, wherein the EOI is delivered to a sensory neuron cell body within the DRG.

15. The method according to claim 14, wherein the EOI is optionally modified in the sensory neuron cell body and is delivered from the sensory neuron cell body to the spinal cord via the central branch of the sensory neuron.

16. A method for identification or validation of an EOI useful in the prevention or treatment of pain comprising

- (i) delivering a test EOI to target cell;
- (ii) analyzing the effect of the EOI on the target cell; and
- (iii) selecting an EOI with therapeutic potential.

17. The method according to claim 16, wherein step (ii) comprises monitoring EOI-induced modulation of a transcriptome and/or proteosome of the target cell.

18. The method according to claim 16, wherein the target cell is derived from a DRG.

19. The method according to claim 16, wherein the target cell is *in vitro*.

20. The method according to claim 18, wherein the target cell is *in situ* within the DRG of a subject.

21. The method according to claim 20, wherein step (ii) comprises analysis of pain in the subject.

22. The method according to claim 21, wherein perception and/or transmission of pain in the subject is analysed.

23. The method according to claim 20, further comprising:

- (iv) delivering the EOI to a DRG of the subject; and
- (v) analyzing pain in the subject.

24. An EOI useful in the prevention or treatment of pain, wherein the EOI is identified or validated by the method according to claim 16.